

# **Governor's Task Force on Science, Technology, Engineering and Math Education (STEM)**

**Wednesday July 16, 2014**

**Manchester Community College, Manchester, NH**

**Task Force Members in Attendance:** Ross Gittell, Chairman; Brian Blake; Barbara Couch; Joyce Craig; Susan D'Agostino; Joseph Helble; Caroline Herold; Robert Hollowell; Todd Lamarque; Paul Leather and Palligarnai Vasudevan.

**Unable to Attend:** Jeremy Hitchcock; Dean Kamen; and Mary Kate Hartwell

**Others present:** Molly Connors, Policy Advisor to Governor Hassan; Lynn Stanley, LICSW, Lead, New Hampshire Afterschool Network; Dr. Mark Wiley, University of New Hampshire.

## **I. Call to order**

Chairman Gittell opened the meeting at 11:00 am by welcoming members of the Task Force and the public who were present at the meeting.

## **II. Approval of June 19, 2014 minutes**

Todd Lamarque made a motion to accept the minutes. Joseph Helble seconded. The minutes were approved unanimously.

## **III. Items requiring discussion**

- a. Discussion and review: suggested framework for future Task Force team report-outs and basis for final report to Governor.

**Action:** Task Force reviewed suggested framework for reporting Team recommendations. Teams will submit each recommendation using the suggested framework as a guide. First drafts of recommendations are due July 30, 2014. Framework model is attached.

- b. Brief updates from each Team: what have you decided and what remains to be done?

**Team A:** reported that they plan to focus in on 3-5 major recommendations and to prepare one-page briefing documents on each, using the new framework as a guide.

**Team B:** reported that they want to examine more closely teacher preparation and professional development; work more on how DoE regional technology and professional development centers can benefit teachers and explore pros and cons of science kits to support K-6 teachers who lack a background in the sciences.

**Team C:** reported that after extensive review of science standards and requirements that Team plans to forward to the entire Task Force their endorsement of the Next Generation Science Standards as a foundation for teaching scientific reasoning and problem solving processes. They plan to work on options for dual pathways to fulfill math requirements, offer recommendations as to how standards can support better preparation of teachers in STEM subjects.

- c. Review of Governor's Executive Order for the Task Force –are we on track?

**Action:** Task Force reviewed the Executive order (in grid format, attached) and will, after consultation in Teams, provide Task Force administrator with their report on which portions of the Executive Order they are addressing. These responses are due back by Monday July 21, 2014.

- d. Review of timeline for report to the Governor

**Action:** Timeline was updated (see attached document).

- e. Discussion of next steps for Teams – how do you want to proceed? Do you want to meet more frequently as a Task Force of the whole and/or keep existing Teams together? Do you want to create new Teams for “cross-over” areas and for topics not addressed as yet?

**Action:** Task Force members decided to continue in existing teams to complete initial recommendations, and following that the Task Force will consider creating new cross-over teams.

- f. Schedule of Upcoming Meetings: August and September meetings

**Action:** Administrator to schedule meeting through October, with Task Force meetings to occur twice monthly through November 10 when report to Governor is due.

#### IV. Public input:

Lynn Stanley, LICSW, New Hampshire Afterschool Network Lead

In its new paper, “Examining the impact of afterschool STEM programs,” the Afterschool Alliance summarizes recent research findings about the importance of afterschool and other out-of-school time experiences for STEM learning and analyzes evaluation data from a selection of strong afterschool STEM programs. Several themes emerged in its analysis (1) Afterschool STEM programs are successful in engaging and retaining large numbers of students from diverse populations, (2) Young people in these programs express curiosity and interest in STEM subjects, in ways that extended that interest in school and out of school, (3) As they participate, young people gain real skills and the ability to productively engage in STEM processes of investigation, (4) Youth learn essential STEM-relevant life and career skills, (5) Participants come to understand the value of STEM in contributing to society and solving global and local problems. They begin to see how STEM intimately connects to their everyday lives, (6) Youth display an increased awareness of career options, as well as a nuanced understanding of those careers. In summary, Afterschool STEM programs can have an impact on academic performance. Funding streams similar to 21<sup>st</sup> Century Community Learning Centers<sup>i</sup> funds that allow schools and community based organizations to provide afterschool and summer STEM programs to children and

youth regardless of the family's ability to pay would expand these proven benefits of STEM learning in afterschool to all students.

Dr. Mark Wiley, University of New Hampshire, Cooperative Extension and representative of STEM NH Coalition: Dr. Wiley commented that science kits (to aid educators in teaching science) have been under utilized and due to the cost of development the Task Force should investigate further before making a decision. He also noted, in response to a question from the Task Force about assessments, that NH has a number of experts who would be available to support work on authentic assessments (also known as performance-based assessments).

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<sup>1</sup> 21st Century Community Learning Centers support the creation of community learning centers that provide academic enrichment opportunities during non-school hours for children, particularly students who attend high-poverty and low-performing schools.